REMARKS

Claims 1, 6 and 9-11 are pending in the application. Claim 1 has been amended. Support for the added language contained in claim 1 is found at page 5, lines 26-28 and at page 11, lines 6-7 and 18-19. No new matter has been added. In view of the foregoing amendments and following remarks, Applicants submit that the rejection of the claims is in condition for withdrawal and that pending claims 1, 6 and 9-11 are in condition for allowance.

The Claimed Invention

The claimed invention is directed to a method of enhancing an immune response to an antigen in a mammal comprising: (a) culturing naïve T cells with anti-CD3- and anti-CD28-coated beads to produce a lymphocyte conditioned media adjuvant; (b) culturing monocytes with the lymphocyte conditioned media adjuvant in the absence of cytokines such as GM-CSF to produce immature dendritic cells; (c) culturing the immature dendritic cells from step (b) with the lymphocyte conditioned media adjuvant in the presence of cytokines such as GM-CSF to produce mature dendritic cells; and (d) administering the lymphocyte conditioned media adjuvant enriched with the mature dendritic cells in combination with a vaccine of the antigen to the mammal.

§ 103 Rejection of Claims 1, 6 and 9-11

Claims 1, 6 and 9-11 are rejected under 103(a) as being obvious over Baxevanis et al. ("Baxevanis") in view of Meidenbauer et al. ("Meidenbauer"), June et al. ("June") and Setaluri et al. ("Setaluri").

The Examiner's assertions with respect to Baxevanis, Meidenbauer and Setaluri have previously been made and are of record, and thus are not reiterated herein.

Regarding June, the Examiner states that this reference discloses stimulation of IL-2 expression in T cells with anti-CD3 mAb or anti-CD28 mAb. The Examiner states it would be obvious to one of ordinary skill in the art to modify the activation process of Baxevanis by replacing the immobilized anti-CD3 antibodies with anti-CD3 and anti-CD28-coated beads for co-stimulation of naïve T cells, as suggested by June.

Applicants submit that Baxevanis in view of Meidenbauer, June and Setaluri does not teach, suggest, or motivate the claimed method.

Baxevanis teaches an *in vitro* method in which peripheral blood mononuclear cells (PBMCs) are taken from normal individuals, stimulated with anti-CD3 antibodies and then added to PBMCs from cancer patients to induce expansion of cytotoxic lymphocytes. Nowhere does Baxevanis teach or even suggest culturing naïve T cells with anti-CD3- and anti-CD28-coated beads to produce a lymphocyte conditioned media adjuvant; (b) culturing monocytes with the lymphocyte conditioned media adjuvant in the absence of cytokines such as GM-CSF to produce immature dendritic cells; (c) culturing the immature dendritic cells from step (b) with the lymphocyte conditioned media adjuvant in the presence of cytokines such as GM-CSF to produce mature dendritic cells; and (d) administering the lymphocyte conditioned media adjuvant enriched with the mature dendritic cells in combination with a vaccine of the antigen to the mammal, as required by claim 1.

Meidenbauer does not cure the deficiencies of Baxevanis. Meidenbauer teaches administering a PSA-based vaccine in combination with a GM-CSF adjuvant to induce a cellular response to human PSA. Thus, Meidenbauer does not teach or suggest the claimed invention and provides no motivation to one skilled in the art to modify Baxevanis to come up with the claimed invention. Rather, the teaching of Meidenbauer would lead one skilled in the art to use GM-CFS as an adjuvant, rather than as a growth factor to induce maturation of dendritic cells in a lymphocyte conditioned medium adjuvant, as required by claim 1.

June does not cure the deficiencies of Baxevanis and Meidenbauer. June teaches induction of of IL-2 gene expression in human T lymphocytes by anti-CD3, which may be augmented by anti-CD28. Nowhere does June teach or even suggest a lymphocyte conditioned media adjuvant produced from culturing naïve T cells with anti-CD3- and anti-CD28-coated beads, culturing monocytes with the adjuvant in the absence of cytokines such as GM-CSF and then with the adjuvant in the presence of cytokines such as GM-CSF to produce immature dendritic cells and mature dendritic cells, respectively. Further, nowhere is there a teaching or suggestion by June to administer the dendritic cell-enriched adjuvant in combination with a vaccine to an antigen to a mammal to enhance immune function.

Setaluri does not cure the deficiencies of Baxevanis, Meidenbauer and June to teach or suggest the claimed invention. Setaluri teaches the administration of a tumor antigen in specific dosages, which is irrelevant to the claimed invention, as the claimed invention is directed to the

administration of a vaccine in combination with a lymphocyte conditioned medium adjuvant enriched with mature dendritic cells, and not to the administration of an antigen.

For at least these reasons, Applicants respectfully assert that claims 1, 6 and 9-11 are not obvious over Baxevanis in view of Meidenbauer, June and Setaluri and respectfully request the rejection be withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that all pending claims 1, 6 and 9-11 in the present application are distinguishable from the cited prior art. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

Respectfully submitted,

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